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Division of Health Care Finance and Policy

Health Insurance Status of Massachusetts Residents

GOVERNMENT DOCUMENTS
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Executive Summary

291,000 residents reported that they had previously been uninsured for varying lengths of time during the year prior to the survey.

What are the demographic and employment characteristics of the uninsured and the insured in Massachusetts?

The survey results show that younger adults, those between 19 and 39 years of age, were more likely to be uninsured than children and adults ages 40 years and older. Of children ages 0 to 5, about 4.4% did not have insurance, and about 7.1% of children ages 6 to 18 were uninsured. People in lower income groups and people of color were at higher risk of being without health insurance coverage, and more males than females were uninsured in Massachusetts. A majority of uninsured adults, about 300,000 were employed.

How does the nature of employment affect health insurance coverage, and what are the potential barriers to access to health care coverage among employed uninsured?

While employer-sponsored coverage remained the primary source of health insurance for Massachusetts residents, certain characteristics of individuals' employment influenced their health insurance status. For example, individuals who worked for small firms (firm size of less than 50 employees) were more likely to be uninsured than those who worked for larger employers. Individuals who were self-employed and those who worked at more than one job also were more likely to be uninsured. Of an estimated 80,000 uninsured who were eligible for coverage

The 1998 Survey of the Health Insurance Status of Massachusetts Residents was conducted by the Center for Survey Research (CSR) of the University of Massachusetts for the Massachusetts Division of Health Care Finance and Policy (DHCFP), pursuant to the mandate established in Section 25 of Chapter 203 of the Acts of 1996, "An Act Providing for Improved Access to Health Care." The study was conducted in two phases: 1) from February through July 1998, the CSR conducted over 2600 telephone surveys; 2) during the summer of 1998, an additional 1000 field surveys were conducted, including in-person interviews. In total, the CSR collected health insurance-related information on approximately 10,000 Massachusetts residents.

The survey was designed to generate data that would answer the following key questions about the health insurance status of Massachusetts residents:

What percentage of Massachusetts residents was uninsured at the time of the survey, and over the year prior to the survey?

About 8.1% of Massachusetts residents, or about 496,000 people, were uninsured at the time of the survey. Of the people who were insured at the time of the survey, about

through employment, more than 60% chose not to get coverage due to financial barriers and about 26% were not currently covered due to waiting periods. Over 80% of all uninsured adults said they would be willing to pay for low-cost coverage, if available.

How does health insurance coverage, or lack thereof, influence access to care and health service utilization?

Overall, insured individuals reported having coverage for basic health services including overnight hospital stays, emergency room visits, physician office visits, and prescription drugs. However, the uninsured as well as some of the insured experienced a financial burden or barriers to accessing needed care that required high out-of-pocket payments. Those without insurance were less likely to use outpatient services or to have office visits. More uninsured than the insured received care in hospital emergency rooms.

What is the level of awareness among the uninsured about public health insurance programs for the uninsured low-income residents of the Commonwealth?

Of the government-sponsored health insurance programs, Medicaid and MassHealth had the highest visibility: nearly four-fifths of the uninsured respondents were aware of Medicaid programs. Close to one-third of the respondents had heard of free care or the Uncompensated Care Pool, Children's Medical Security Plan, and Healthy Start.

What is the prevalence of chronic conditions and disabilities among the uninsured and the insured? How is their overall health status?

More insured than uninsured adults reported having had chronic illnesses and disabilities. A higher percent of insured than uninsured adults reported being in fair to poor health.

Among the insured, how many people are underinsured? Does underinsurance significantly limit access to needed care?

Almost a third of all insured respondents reported that they would be required to pay more than \$500 out-of-pocket for inpatient stays or outpatient surgery. About a quarter of insured residents reported that they perceived the financial burden of receiving health care to be somewhat to very high. About 24% reported that accessing health care was a problem due to lack of coverage, and 30% reported that they had encountered financial barriers to accessing needed care.

What are the demographic characteristics of the elderly?

The majority of the elderly respondents (74%) resided in senior-only households; 30% of the elderly lived alone. About 19% of senior households had incomes less than 150% of FPL, and 10% had incomes between 150% and 185% FPL. The majority, about 91%, of the elderly were white, while 1.2% were black and 2.6% were Hispanic. As might be expected in an elderly population, females constituted the majority (61%) of the sample. Elderly persons who use prescription drugs but lack coverage are spread across regions of the state, with the lowest percentage (13%) living in metropolitan Boston and the highest (29%) living in Western Mass.

What sources of coverage do the elderly currently have for needed prescription drugs?

A majority (86%) of the elderly who responded to the survey reported having had to use prescription drugs during the year prior to the survey. Of all the elderly who said they needed to use prescription drugs in the past year, about two-thirds reported having some form of coverage for prescription medicines. For those earning less than 150% of FPL, 52% had coverage for prescription drugs, while 70% of the elderly with income from 150-185% of FPL had coverage.

At the time of the survey, how many elderly were knowledgeable about the Senior Pharmacy Program? Is there wide variation in awareness about the Program across the five Massachusetts geographic regions?

About a third of the elderly surveyed reported being aware of the Senior Pharmacy Program (SPP). Awareness for those in the

SPP-eligible income category was even greater, with approximately 37% having heard about the SPP. Of those respondents without coverage, regional awareness was highest in metropolitan Boston, at about 63%; respondents in Central Massachusetts reported the lowest awareness, with 8% of elderly having heard about the Senior Pharmacy Program.

How many elderly are potentially eligible for SPP benefits? What is their geographic distribution among the five regions?

Approximately 5.9%, or 48,500 of the elderly residents, were potentially eligible for Senior Pharmacy Program benefits at the time of the survey. The largest proportion of the potentially eligible elderly live in Western and Southeastern Massachusetts, 37% and 26% respectively.

Health Insurance Status of Massachusetts Residents

October 1998



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A Word About the Division

Satisfying the Need for Health Care Information

The effectiveness of the health care system depends in part upon the availability of applicable information. In order for this system to function properly, purchasers must have accurate and useful information about quality, pricing, supply and available alternatives. Providers need information on the productivity and efficiency of their business operations to develop strategies to improve the effectiveness of the services they deliver. State policy makers need to be advised of the present health care environment, as they consider where policy investigation or action may be appropriate.

As part of its health care information program, the Division of Health Care Finance and Policy publishes reports to meet this need for information. These reports fo-

The Division of Health Care Finance and Policy collects, analyzes and disseminates information with the goal of improving the quality, efficiency and effectiveness of the health care delivery system in Massachusetts. In addition, the Division administers the Uncompensated Care Pool, a fund that reimburses Massachusetts acute care hospitals and community health centers for services provided to uninsured and underinsured individuals.

Mission

The Division's mission is to contribute to the development of policies that improve the delivery and financing of health care in Massachusetts by:

- ◆ collecting and analyzing data from throughout the health care delivery system;
- ◆ disseminating accurate information and analysis on a timely basis;
- ◆ facilitating the use of information among health care purchasers, providers, consumers and policy makers; and
- ◆ monitoring free care in the Commonwealth through thoughtful administration of the Uncompensated Care Pool.

cus on various health care policy and market issues.

Organizational Structure

The Division of Health Care Finance and Policy is an agency within the Executive Office of Health and Human Services (EOHHS). The Commissioner is appointed by the Secretary of EOHHS.

The organizational structure follows:

Health Systems Measurement and Improvement Group

The Health Systems Measurement and Improvement Group works to accelerate efforts to improve the delivery of primary care services in Massachusetts. Toward this end, the Group provides research and demonstration resources to other state agencies, facilitates and supports the development of state-wide measurement systems for quality and efficiency in collaboration with hospitals and health plans, and strives to meet the information needs of the administration and legislature regarding the changing health care system. In addition, the Health Systems Measurement and Improvement Group acts as the central source of health care information for the Division of Health Care Finance and Policy.

Health Data Policy Group

The Health Data Policy Group is charged with having a vision for the management, development and potential use of Division of Health Care Finance and Policy data by researching and evaluating health data management and policy issues.

The group also is responsible for identifying and developing confidentiality and privacy protocols, data base quality improvement, customer driven data products and consistent data policies. The goal of this group is to anticipate future health care information needs and recommend product

development that is accurate, useful, realistic and timely.

Pricing Policy and Financial Analysis Group

The Pricing Policy and Financial Analysis Group develops health care pricing policies, methods and rates that support the procurement of high quality services for public beneficiaries in the most cost-effective manner possible. This group also provides information, analysis and recommendations to policy makers to support their health care financing decisions, and performs specialized analyses of innovative health care financing and purchasing methods.

Audit, Compliance and Evaluation Group

The Audit Compliance and Evaluation (ACE) Group examines financial data reported to the Division of Health Care Finance and Policy. The ACE Group performs audit, review, screening and quality control functions that provide the building blocks for the Division's work in developing pricing policies and measurement tools to improve the health care system in Massachusetts.

DHCFP support groups include :

Administration

The Office of the Executive Secretary oversees the agency's budget, regulatory process and personnel.

Information Technology Group

The Information Technology Group is responsible for managing the Division's computer network and data bases.

Office of the General Counsel

The Office of the General Counsel litigates administrative appeals filed by providers, analyzes proposed legislation relative to

the health care delivery system and provides legal advice to the Commissioner and staff concerning the development and application of regulations, policy positions and pricing information.

Office of Communications

The Office of Communications produces the Division's publications and web site, and serves as the point of contact for inquiries from outside parties.

Chapter 1: Introduction

Most Massachusetts residents, like the majority of Americans, receive health care coverage as a benefit of their employment. In a strong economy, the proportion of residents who receive health insurance through this avenue may expand. Recently, many states, including Massachusetts, have also made important policy changes aimed at extending health insurance coverage for people who are not covered under employer-sponsored policies.

Health Insurance Reform in Massachusetts

State residents without comprehensive health care coverage include many vulnerable groups: children, adults with disabilities, long-term unemployed adults, and low-income senior citizens. Massachusetts' ability to extend coverage to these residents has been facilitated by federal approval of the Section 1115 Medicaid Research and Demonstration waiver to the state in 1995; and by the corresponding enactment of enabling legislation by the Massachusetts legislature, in 1996. In addition, Massachusetts has also taken advantage of federal funding available under the Children's Health Insurance Program (CHIP), under Title XXI established by the Balanced Budget Act of 1997, in order to

further expand health insurance coverage to uninsured children.

Massachusetts' enabling legislation, Chapter 203 of the Acts of 1996, restructured and expanded health care coverage for a variety of target populations. In particular, the Medicaid expansions implemented to date provide wider access to health care coverage to children in Massachusetts. Under the new provisions, all uninsured children, and their parents, with family incomes up to 200% of the federal poverty level, became eligible to receive health care coverage through the Medicaid program. The new legislation also increased funding for the Children's Medical Security Plan (CMSP), and relaxed the CMSP eligibility criteria to include children up to age eighteen. In addition, the legislation provided health insurance benefits to disabled adults and long-term unemployed adults under Medicaid. It also instituted a prescription drug subsidy to low-income elderly citizens (age 65 years and over) under the Senior Pharmacy Program.

Finally, legislation enacted in 1997 authorized, for low-income workers, a program of assistance with premium payments plus financial incentives for their employers. This program, known as the Family Assistance Program (formerly called IRP) will assist workers with family incomes below 200% of the FPL if their employer has fifty or fewer employees and pays half of the worker's health insurance cost.

Financing for these expansions came from three main sources: increased federal matching funds, reallocation of the Uncompensated Care Pool, and a 25 cent increase in the cigarette tax. The expansions are currently being implemented in incremental stages, with the Family Assistance Program scheduled for implementation in early 1999.

The 1998 Survey of the Health Insurance Status of Massachusetts Residents

Section 25 of Chapter 203 required the Division of Health Care Finance and Policy (DHCFP) to monitor the impact of these reforms on the health insurance status of non-institutionalized residents of Massachusetts and on related aspects, through a state-wide, comprehensive survey. In particular, Section 25 of Chapter 203 mandated that the Division conduct and report on a comprehensive survey of the uninsured and the underinsured that includes sufficiently large samples of adults and children to provide reliable estimates and analyses of:

- ◆ Rates of insurance, uninsurance and underinsurance among all non-institutionalized residents in Massachusetts at the time of the survey and in the course of the prior year;
- ◆ The scope, source and cost of immediate, prior or present insurance coverage, and reasons for being without coverage, including awareness of private and public sources of coverage and willingness to purchase coverage if available;
- ◆ The relationship between insurance coverage and employment including but not limited to employer SIC codes, hours worked, duration of employment, size of firm, actual or potential policyholders in the household, income, poverty level, age, race or ethnicity, gender, household structure and region of residence; and
- ◆ Estimates and analyses of the relationship between insurance coverage and health status, disability or chronic conditions, and health service utilization patterns, including

the use of free or charitable care, among residents of the Commonwealth.

Section 25 was later amended to require the survey to provide an estimate of the number of persons potentially eligible for the Senior Pharmacy Program.

The purpose of this report is to respond to the legislative mandate to address these and related issues, using data from the 1998 health insurance survey.

Prior Health Insurance Surveys in Massachusetts

The Commonwealth of Massachusetts previously sponsored surveys of the insurance status of its residents in 1989 and in 1995. The 1989 survey was conducted against the backdrop of the Health Security Act of 1988 (Chapter 23) and the ensuing debate over mandatory employer coverage and universal access to health insurance in Massachusetts. It measured the rate of uninsurance and underinsurance, the problems of the uninsured, the likelihood that people would buy insurance if offered, and the proportion of the uninsured who would be covered under an employer mandate. In addition, the survey focused on the experiences of the elderly with the health care system.

The study found that an estimated 8% of the total state population were uninsured in 1989. The study found variation in the rates of uninsurance by region, with Western Massachusetts having the highest (15%) reported rate of uninsurance. Other important findings included that the majority of the uninsured lived in households where someone was employed (84%), the majority of the uninsured had household incomes above the poverty line (86%), and the majority of the uninsured were white (75%). The results also indicated that the uninsured experienced a heavier burden of illness, and re-

ported more problems with access to care compared to insured residents.

The scope of the 1995 survey was similar to that of the 1989 study, except that the 1995 survey excluded measures of underinsurance in Massachusetts. The 1995 study found that an estimated 11.4% of the total state population was uninsured in 1995. Other key findings included that the majority of the uninsured adults were employed (64%), the majority of the uninsured had

household incomes above the poverty line (65%), and the majority of the uninsured were white (78%). The results also indicated that the majority of uninsured individuals (79%) had been without coverage for more than one year. Consistent with previous studies, the 1995 survey found that individuals who were without health insurance were more likely to perceive their health status to be fair or poor than were individuals with insurance.

Chapter 2: Methodology

The questionnaire required an average of 17 minutes per interview. The maximum interview length was about 35 minutes. The final refined version was programmed into the CSR's Computer Assisted Telephone Interviewing (CATI) system for actual survey administration. The questionnaire was translated into Spanish and validated for linguistic congruence with its English version using accepted methods and norms.

The 1998 Survey of the Health Insurance Status of Massachusetts Residents was conducted using both telephone and in-person field interviews. The sampling unit for the survey was a housing unit, and respondents were asked questions from a pre-tested instrument. Following is a summary of the 1998 study design; a detailed description of the survey methodology will follow in a separate document.

Questionnaire Development

The Division of Health Care Finance and Policy (DHCFP) contracted with the Center for Survey Research (CSR) of the University of Massachusetts, Boston, for survey design and implementation. The DHCFP staff worked with the CSR to translate the mandate and major policy concerns into a draft questionnaire.

The survey experts at the CSR conducted face-to-face cognitive interviews with a small group of people in order to validate the draft version of the questionnaire developed in collaboration with the DHCFP project team. The draft version was then pre-tested via telephone interviews with a randomly selected group of Massachusetts household residents for further validation and timing of actual survey administration.

Sampling Methodology and Data Collection Procedures

The sampling unit for this survey is a housing unit or a household. For the purpose of this survey, a housing unit is defined as a group of related or unrelated individuals including adults and dependent children residing together at the time of the survey. This definition excludes people living in institutions or group quarters, those in active military service, children living away in college dormitories, and people who are homeless.

Random Digit Dialing Sample

The survey was designed to be administered to a randomly selected sample of 2,625 households, approximately 525 each from the pre-defined five geographic regions of Massachusetts (see Appendix B for a detailed listing of the five regions). This sample was drawn using the GENESYS system for Random Digit Dialing (RDD). All respondents in the RDD sample were asked the survey questions over the telephone. A total of 7,820 telephone numbers were dialed.

The National Health Interview Survey (NHIS) data collection model was applied to collect information about all people living in

screened households.¹ In this model, an informed adult member in the household acts as the respondent to answer questions about all household members.

The RDD sample was designed to yield survey results with the following estimated 95% confidence limits:

- ~ 1.0 percentage points on percentage uninsured statewide
- ~ 2.8 percentage points on percentage uninsured per area
- ~ 6.0 percentage points on characteristics of the uninsured statewide
- ~ 12.0 percentage points on characteristics of the uninsured per area

Interviews with households in the RDD sample were conducted between February 7th and July 1st, 1998. At least ten, and often more than ten, phone call attempts to each randomly selected telephone number were made over a minimum two-week period. At least one phone call attempt was made in each of the following three time periods: (1) Monday through Friday, between 9:00 a.m. and 3:00 p.m., (2) Monday through Friday, between 3:00 p.m. and 9:00 p.m., and (3) Saturday or Sunday. Only after an interviewer was unsuccessful in making contact with a person or answering machine at each randomly selected telephone number in any of these minimum 10 attempts, was the telephone number retired from the sample as a no-contact number.

Interviews with the RDD sample yielded 2,673 completed screener surveys, 410 uninsured adult and 47 uninsured children surveys, and 1,856 completed insured surveys. 452 elderly (age 65 years and over) surveys were completed for the Senior Pharmacy Program. The actual number of interviews, in all the categories mentioned above, exceeded the number of interviews expected

and budgeted for in the original survey design.

The response rates for the RDD sample were 63.2% for screener interviews, 56.5% for uninsured interviews, 60.1% for insured interviews, and 60.0% for elderly interviews. The response rate calculations are conservative in their approach, as they treat each residential number at which an interview was not conducted as a non-interview. In addition, they count a percentage of all the numbers, whose residential status could not be determined, as non-interviews.

Area Probability Sample

Due to non-inclusion of people without telephones, or of those not responding to telephone calls or unavailable at the time the calls are made, the RDD sample design may under-estimate the rate of uninsurance. In order to address this potential bias, a statewide area probability sample was drawn based on street addresses to yield 1,000 completed interviews. Interviews with the area probability sample were conducted in a dual mode fashion, in which sampled addresses were interviewed by telephone if possible, or by face-to-face interviews if necessary. About 60% of the households in the area probability sample responded to the survey in face-to-face interviews.

The data collection protocol for these sample addresses began with a letter to each randomly selected address, explaining the purpose of the study and advising the household members to expect a visit or a call by an interviewer from the CSR in the near future. Letters were timed to arrive at the addresses no more than two weeks prior to an initial contact. For sampled addresses for which telephone numbers were obtained, the same data collection protocol was used as for RDD sample telephone numbers. The CSR attempted to reach in person all the respondents who could not be reached by telephone and those who refused a telephone interview. The response rate for screener

interviews for the area probability sample was 65%.

For most questions asked in the survey, the results of the RDD and the area probability samples were similar. However, the rates of uninsurance were slightly higher in the area probability sample. In addition, sources of insurance reported by individuals sampled in the two groups were somewhat different. Previous research has documented that samples of individuals who are enrolled in Medicaid programs tend to under-report the source of their health insurance. In-person interviews typically provide a more accurate estimate of the prevalence of enrollment in public programs.

Since our results from the RDD sample showed greater under-reporting of Medicaid coverage, we will use the results of the area probability sample to present results related to source of insurance coverage. We will present the results of both the RDD and the area probability sample when reporting rates of uninsurance in Massachusetts.

Weighting of Survey Data

Inflation weights were used to inflate the size of the study sample to population estimates. An inflation weight is the inverse of the probability of selection in the study sample adjusted for survey non-response. Four different inflation weights were applied to different survey questions. These included household inflation weight, adult inflation weight, child inflation weight, and senior

(elderly person) inflation weight depending on whether the question provided information at the household level, at an individual adult level, at an individual child level, or at an individual elderly resident level.

Plans for Current and Future Analyses

The analysis presented in this report pertains to the health insurance status of Massachusetts residents, both point estimates and estimates of insurance status during the year prior to the survey; demographic distribution of the residents by their insurance status; the nature of the relationship between employment and insurance status; its implications for state-sponsored insurance programs; and awareness among the uninsured about public programs.

In addition, results are presented that describe patterns of health care utilization and health status by insurance coverage; limitations on access to needed medical care due to uninsurance or underinsurance; and perceived financial burden due to lack of coverage for needed services. Finally, the report provides an estimate of the non-institutionalized elderly potentially eligible for prescription drug benefits under the Senior Pharmacy Program.

We plan to conduct additional analyses following this report, using the survey data in conjunction with existing available data sets. The primary goal of these future analyses will be to inform policy and research in Massachusetts.

Endnote for Chapter 2: Methodology

1. The National Health Interview Survey (NHIS) is a continuing nationwide survey of the U.S. civilian non-institutionalized population. The NHIS is designed to be the principal source of information on the health of the U.S. population, and is conducted by the National Center for Health Statistics.

Chapter 3: Study Findings

The survey results show that younger adults, those between 19 and 39 years of age, are more likely to be uninsured than children and adults ages 40 years and older. People in lower income groups and people of color are at higher risk of being without health insurance coverage and more males than females are uninsured in Massachusetts.

About 66% of the non-elderly adults who are insured reported that they receive their health insurance coverage through work. However, study results also show that people without health insurance are likely to be employed and to work a similar number of hours each week as employed people with health insurance. Individuals who are uninsured are more likely to be self-employed or to be unemployed than people with health insurance. Individuals without insurance are also more likely to have more than one job and to work at firms with 50 or fewer employees.

More than a quarter (28.6%) of the working uninsured reported they were eligible to receive health insurance coverage through work, although they were uninsured at the time of the survey. Two main reasons for being uninsured despite coverage offered by their employer were that either they could not afford the out-of-pocket costs of employer-sponsored coverage or that they

needed to complete a waiting period before receiving health care benefits.

Nearly 80% of the uninsured respondents were aware of Medicaid and MassHealth. Close to one-third of the respondents had heard of free care or the Uncompensated Care Pool, Children's Medical Security Plan, and Healthy Start. Individuals who are uninsured reported that they would be willing to purchase health insurance coverage if it were reasonably priced.

Lack of health insurance translated into differences in use of health care services. People with insurance were more likely to report being able to receive care when needed, and to use non-emergency and inpatient services. In contrast to other studies, people who are uninsured in Massachusetts appear to be less likely to report poorer health status than those who are insured.

Finally, 86% of seniors reported having had to use prescription drugs in the past year, and about two-thirds had some form of prescription drug coverage. About a third of seniors living in Massachusetts were aware of the Senior Pharmacy Program.

Household Structure

Of the households surveyed, 87% had all members of the household insured, about 4% had all members without health insurance coverage, and about 9% had a mix of insured and uninsured members. More than three-quarters (78.2%) of insured households had one policyholder, 18% had two policyholders, and the remaining had three or more policyholders. Average family size in Massachusetts, according to data collected during this survey, was 2.7 individuals per household. About 39% of households had children; the average number of children in these households was 1.9, with the actual

number of children ranging between one and eight.

Health Insurance Status of Massachusetts Residents

Based on results of the field interviews, approximately 8.1% (496,000)^{1,2} of all Massachusetts residents were uninsured. About 291,000 Massachusetts residents, who were insured at the time of the survey, reported they were uninsured at some time during the previous year. Therefore, the rate of uninsurance over the year prior to the survey was about 12.8%.

Sources of Health Insurance Coverage

Employer-based coverage remains the primary source of health insurance in Massachusetts. Nearly 66% of the insured non-elderly residents reported that they received their health insurance coverage through work. Approximately 11.5% of the insured non-elderly reported having coverage through some kind of group arrangement. In addition, about 5.5% of non-elderly respondents said they received coverage under Medicare or some other federal government program, while 9.5% of insured non-elderly residents reported having Medicaid or MassHealth coverage. About 3.7% of the insured non-elderly reported having purchased their health insurance coverage directly, nearly 1.7% said the policyholder for their insurance coverage was someone outside their household, and about 2.5% said they had coverage through some other means.

Demographic Profile of the Uninsured in Massachusetts

The survey results show that younger adults, those between 19 and 39 years of age, are more likely to be uninsured than children and adults ages 40 years and older. People in lower income groups and people of

color are at higher risk of being without health insurance coverage and more males than females are uninsured in Massachusetts.

Age

Children and older Massachusetts residents are much more likely to have insurance than younger, working age adults are. Of children ages 0 to 5, about 4.4% do not have insurance, and about 7.1% of children ages 6 to 18 are uninsured. In total, about 108,500 children ages 18 and under³ are uninsured. Individuals ages 65 and older are nearly all insured. However, among working age adults, 13.7% of individuals ages 19 to 39 are uninsured. And, about 7.1% of individuals ages 40 to 64 are uninsured.

Income

About 20% of individuals with income less than 133% of the federal poverty level (FPL) are uninsured, and about one-quarter of those with income between 133 and 149% of the federal poverty level are uninsured. The proportion of individuals who are uninsured decreases as income increases, such that less than three percent of those with income greater than 400% of the FPL are uninsured.

Race

Persons of color living in Massachusetts are more likely to be uninsured than whites. About 18% of individuals who are Hispanic and about 15% of African Americans are uninsured. Only about 6% of white residents are uninsured.

Gender

Males living in Massachusetts are more likely to be uninsured than females, with more than 9% of males being uninsured, and about 6% of females.

Region

Over 90% of the residents in each of the five regions of the Commonwealth (please

Distribution of the Insured and the Uninsured within an Age Group: Non-elderly Residents Only

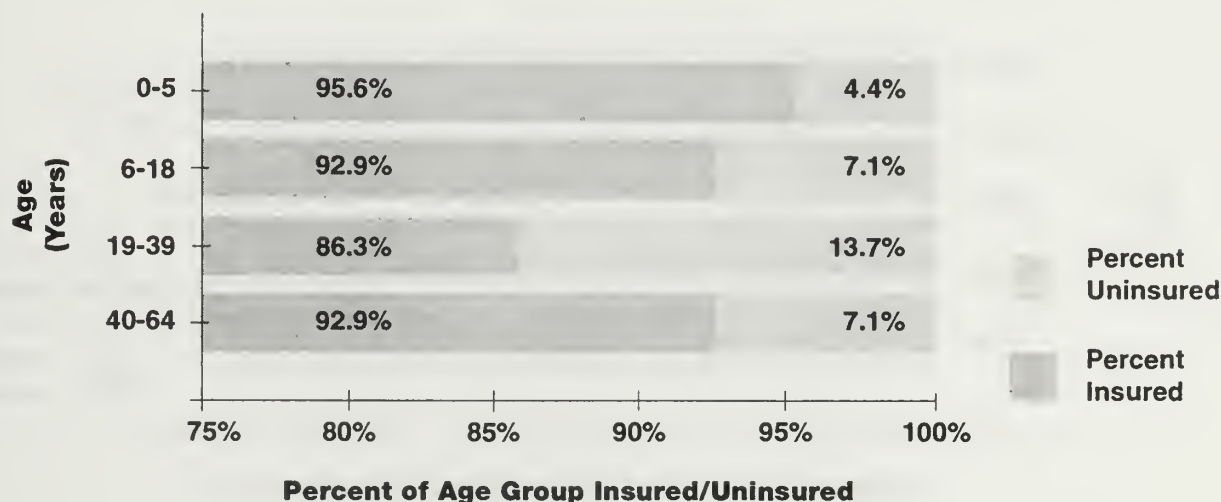


Figure 1 Source: DHCFP survey data from the area probability sample (see Chapter 2 on page 5).

Distribution of the Insured and the Uninsured within an Income Group

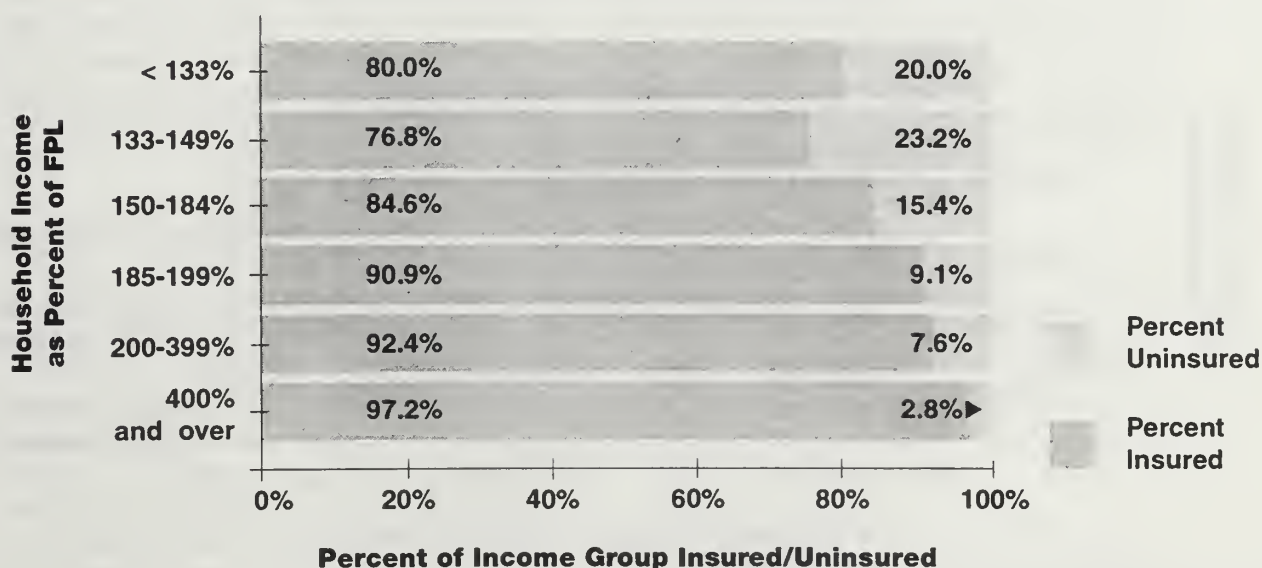


Figure 2 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Distribution of the Insured and the Uninsured within a Race/Ethnicity Group

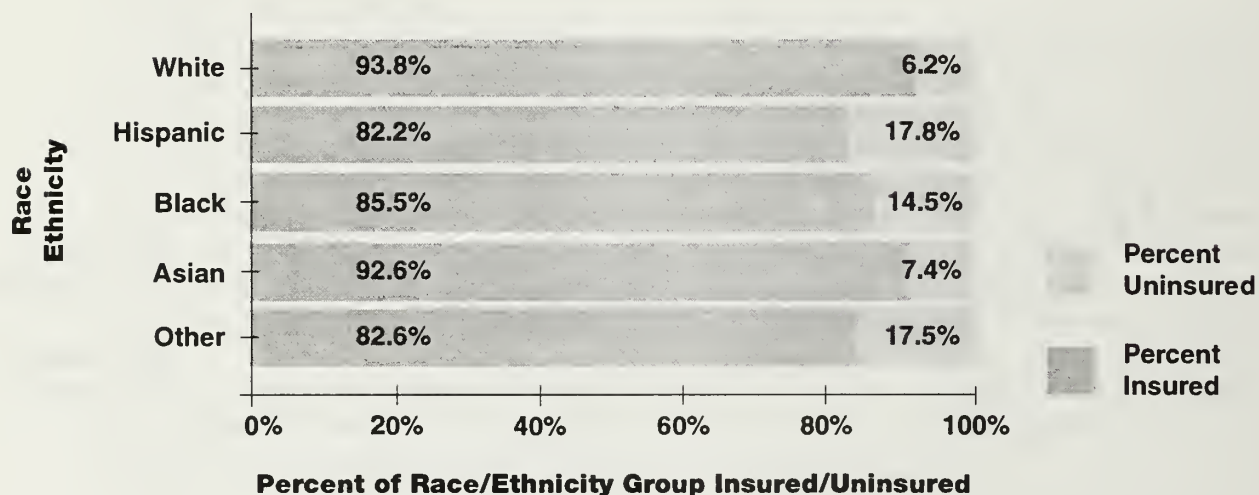


Figure 3 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Distribution of the Insured and the Uninsured within a Geographic Region

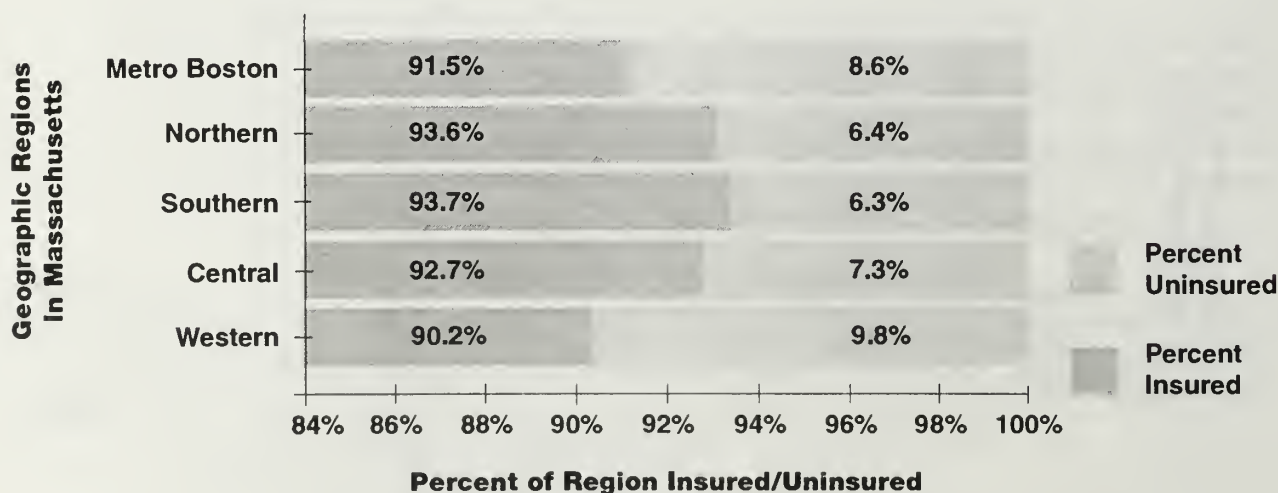


Figure 4 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Source of Employment and Insurance Status

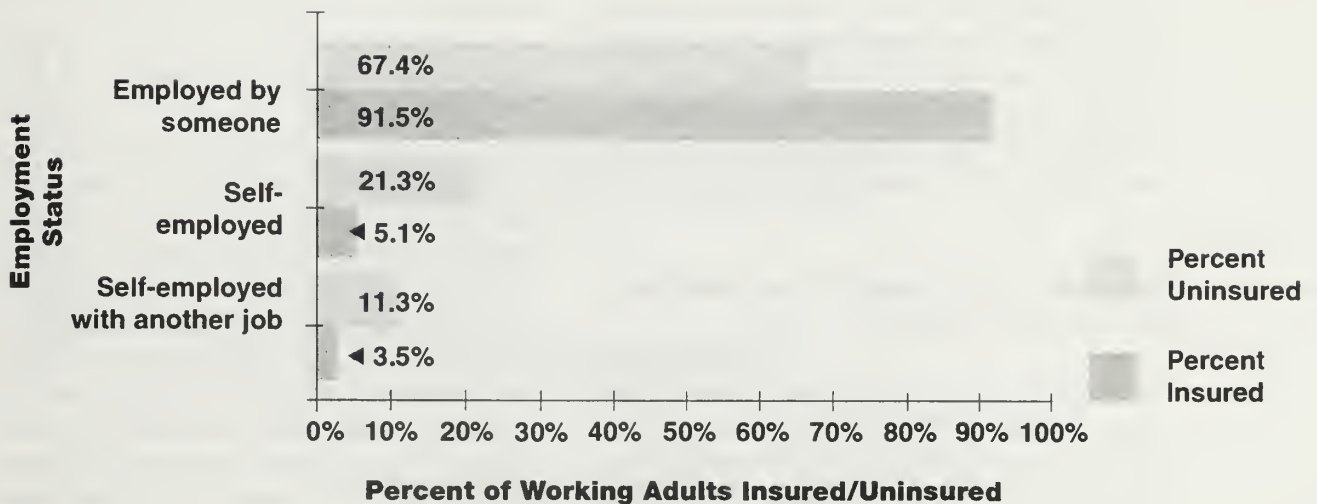


Figure 5 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

see Appendix B on page 35 for a listing and map of these five regions) had health insurance coverage. The proportion of residents with health insurance coverage in each region ranged from a high of about 94% in northern and southern Massachusetts, to a low of about 90% in western Massachusetts.

Employment and Insurance Status

People without health insurance who are employed work a similar number of hours each week as employed people with health insurance. However, individuals who are uninsured are more likely to be self-employed or to be unemployed than people with health insurance. Individuals without insurance are more likely to have more than one job and to work at firms with 50 or fewer employees.

Source of Employment

Although both uninsured and insured individuals are likely to be employed, larger proportions of uninsured individuals are self-employed. More than 30% of uninsured individuals are self-employed or are self-employed and have a second job, compared to only about 8% of insured individuals.

Firm Size

A larger proportion of individuals without insurance is employed by firms with up to 50 employees, than individuals with insurance (78% of uninsured; 45% of insured). The majority of insured individuals who are employed (55%) work in firms with more than 50 employees.

Hours Worked

Insured and uninsured adults work a similar number of hours each week. About

two-thirds of both insured and uninsured adults work at least 35 hours each week.

Number of Jobs

About 85% of insured adults have one job, while only about 66% of uninsured adults have one job. Individuals who are uninsured are much more likely to be unemployed or to work at more than one job than are people with insurance.

Prior Insurance Status of the Currently Insured and Uninsured

Of those who were insured at the time of the survey, about 291,000 had been uninsured for some length of time during the prior year. Nearly 80% of these individuals reported currently having coverage through work or through government programs.

Those who were uninsured at the time of the survey were more likely to have been uninsured for a longer duration, than those who were previously uninsured but were insured at the time of the survey.

Source and Length of Coverage of Prior Insurance

As expected, a majority (about 68%) of the currently uninsured adults reported employment as the source of their health insurance when they last had coverage. About 22% of the respondents who were insured at the time of the survey but were uninsured for some time during the previous year reported that they were uninsured for longer than 12 months. About one-third were uninsured for a period of up to three months during the previous year, while nearly one-fourth were uninsured for a duration of between 4 and 6 months of the year.

Hours Worked and Insurance Status

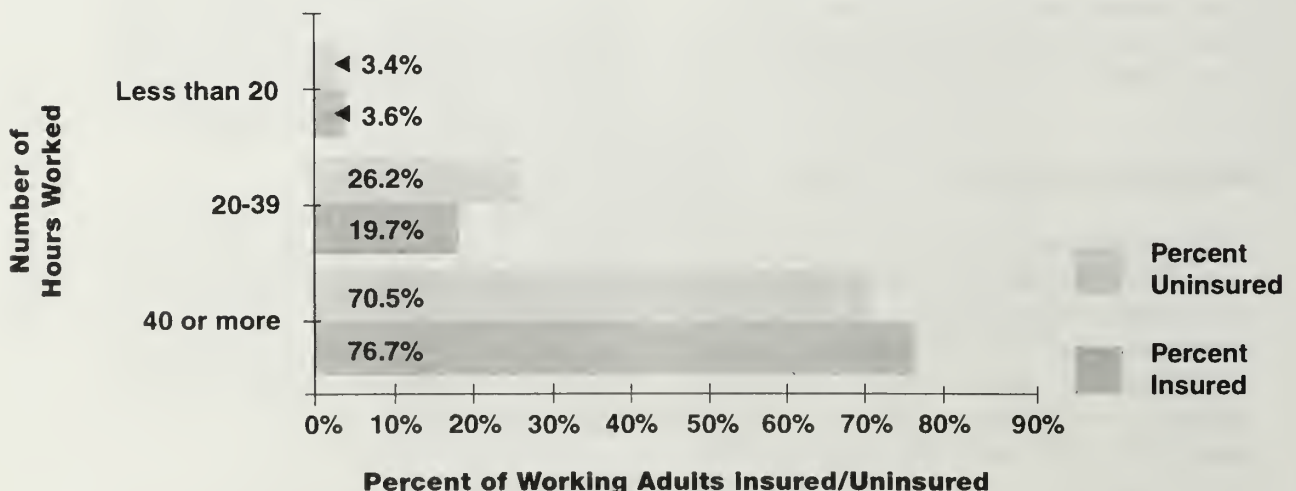


Figure 6 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Duration of Employment and Insurance Status

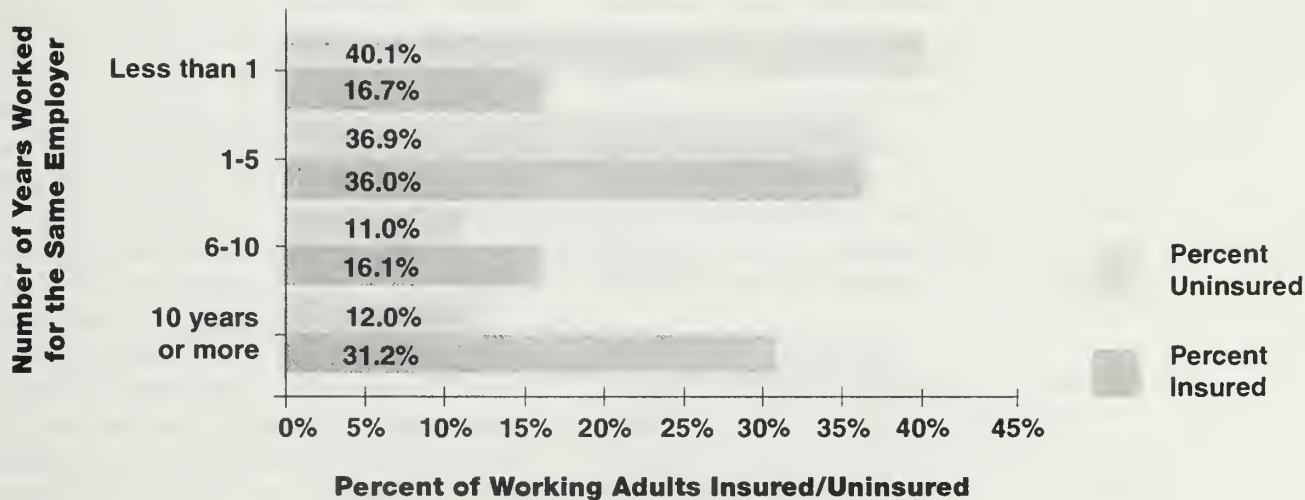


Figure 7 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Eligibility for Coverage through Work: Uninsured Working Adults

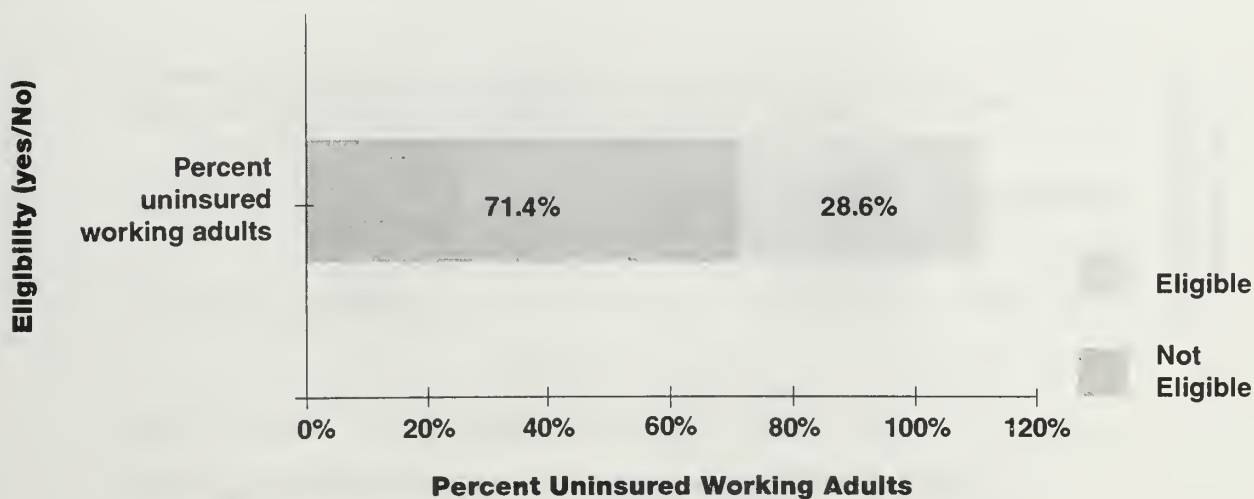


Figure 8 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Compared to the currently insured, those currently uninsured appeared to have been uninsured for much longer. While about 25% of uninsured adults reported having been without coverage for some period of time up to one year prior to the survey, nearly one third reported having been without coverage for between two and six years. At the same time, 7.6% of uninsured adults claimed that they had been without coverage for over eight years, while more than one third of these respondents said they had never had health insurance coverage of any kind.

Reasons for Change in Insurance Status

Over half of the currently uninsured adults reported that they lost their insurance coverage due to change in their employment status. About 13% reported that they dropped coverage because they found it too costly.

Potential for Insurance Coverage for the Currently Uninsured

More than a quarter (28.6%) of the working uninsured reported they were eligible to receive health insurance coverage through work, although they were uninsured at the time of the survey. Two main reasons for their being uninsured despite coverage offered by their employer were that either they could not afford the out-of-pocket costs of employer-sponsored coverage or that they needed to complete the waiting period before they started receiving the benefits.

Among the uninsured, a majority was aware of MassHealth or Medicaid programs. Fewer, however, had heard about coverage for free care, the Children's Medical Security Plan, and Healthy Start. A majority of uninsured respondents expressed willingness to pay part of the premium if low-cost coverage were made available to them.

Reasons for Currently Being Uninsured: Employed Adults Eligible for Coverage through Work

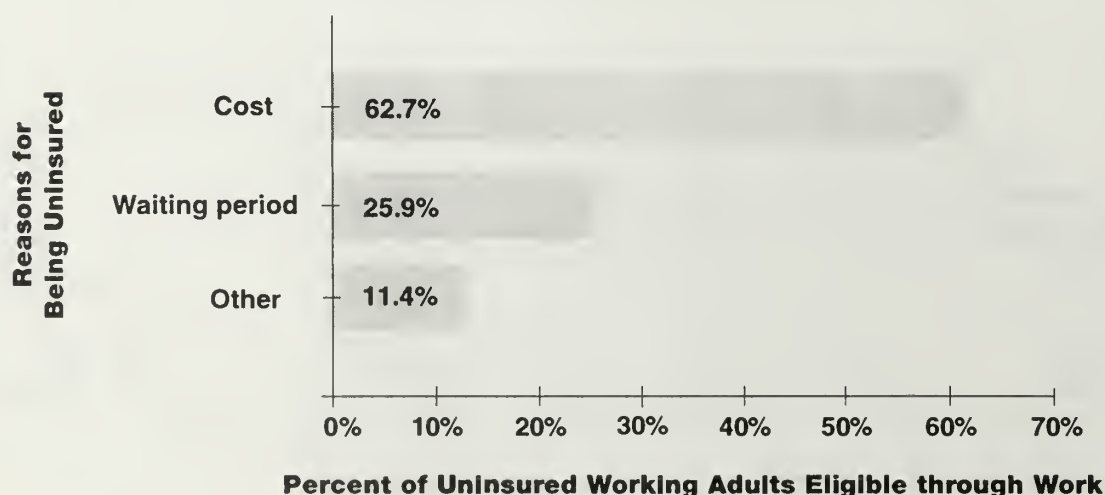


Figure 9 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Last Year in which Respondent Had Coverage

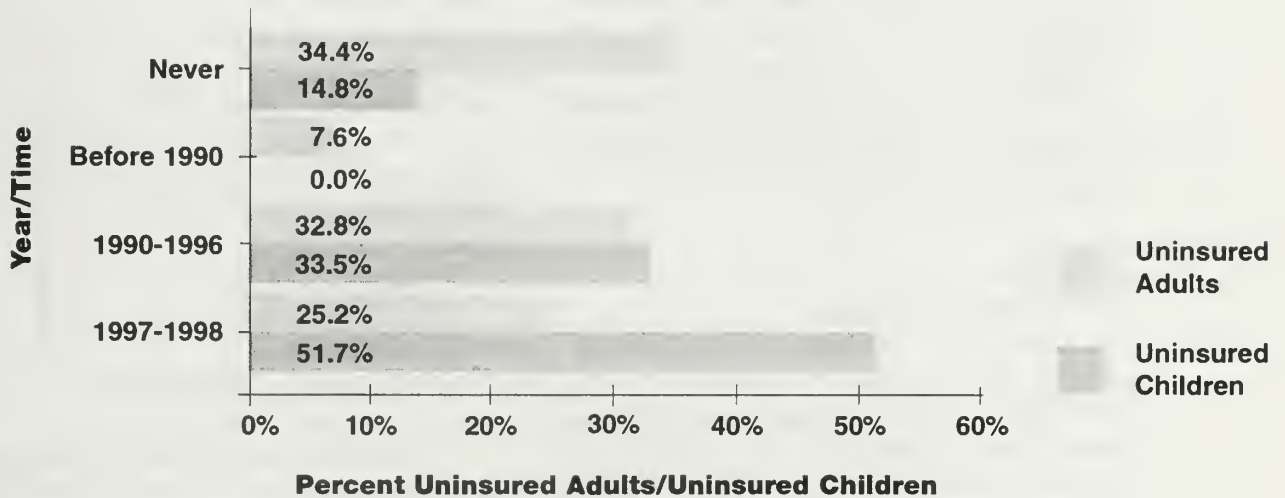


Figure 10 Source: DHCFF survey data from the random digit dialing sample (see Chapter 2 on page 5).

Most Frequent Reasons for Loss of Insurance

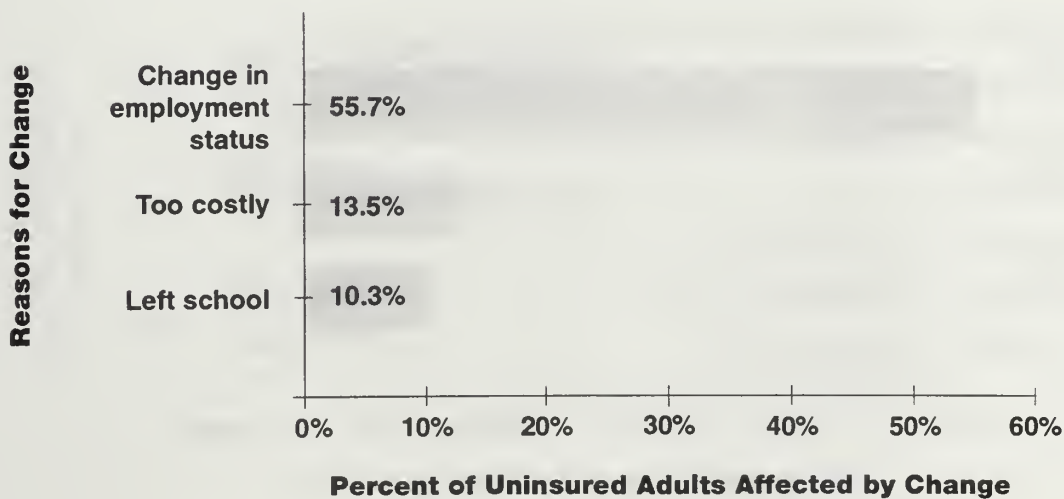


Figure 11 Source: DHCFF survey data from the random digit dialing sample (see Chapter 2 on page 5).

Eligibility through Employment

More than a quarter (28.6%) of the uninsured working adults reported that they were eligible to receive health insurance coverage through work. Of these, a little over 60% reported cost being the reason for being uninsured despite their eligibility for coverage through work. About 26% said they would get coverage after the waiting period required by their employer.

Awareness about Public Programs

Nearly 80% of the uninsured respondents were aware of Medicaid and MassHealth. Close to one-third of the respondents had heard of free care or the Massachusetts Uncompensated Care Pool, Children's Medical Security Plan, and Healthy Start.

Willingness to Purchase Low-cost Coverage

Most of the uninsured residents responded that they would be willing to purchase low-cost coverage if it were made available to them. About 61% of those who said they would be willing to pay for low-cost health insurance were willing to pay less than \$100 per month; about 35% said they were willing to pay up to \$300; and 3.3% said they would pay between \$300 and \$500 per month.

Insurance Status and Health Service Utilization

Uninsured non-elderly adults were more likely to receive care in hospital emergency rooms (ER) and less likely to receive care in office settings than insured adults. Unin-

Awareness of Public Programs

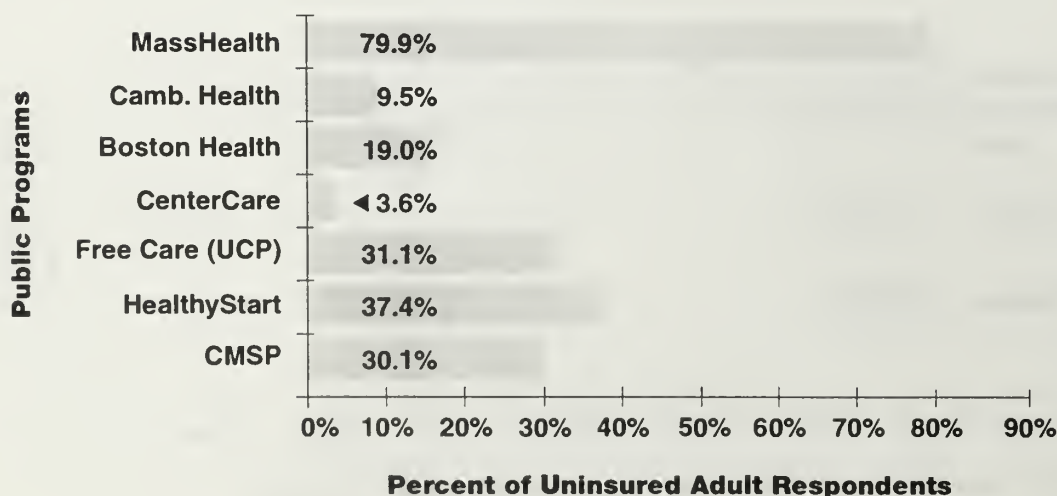


Figure 12 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Alternative Sources of Payment for Needed Services: Uninsured Adults

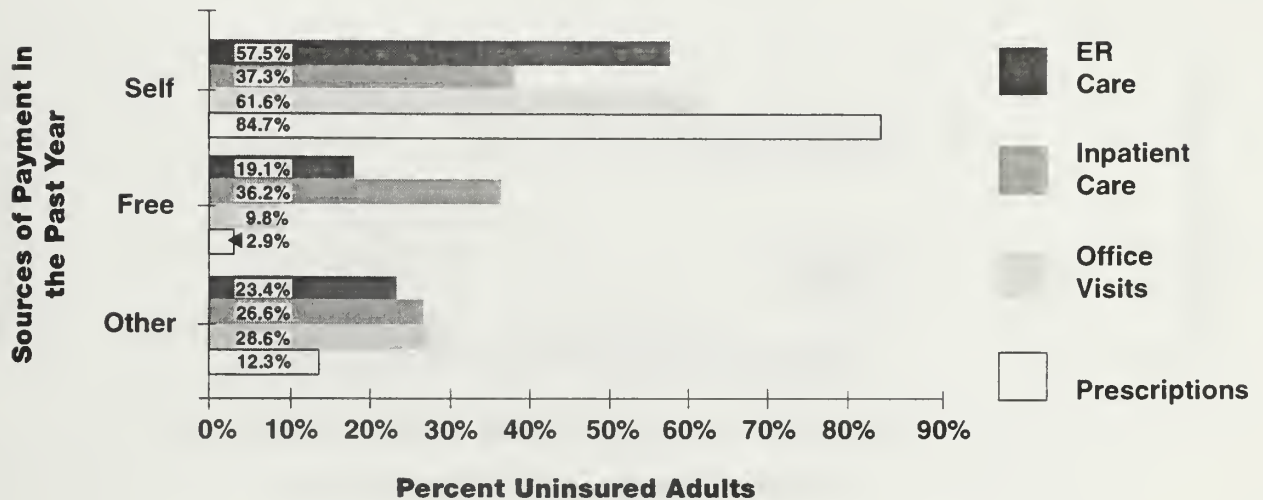


Figure 13 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Alternative Sources of Payment for Needed Services: Uninsured Children

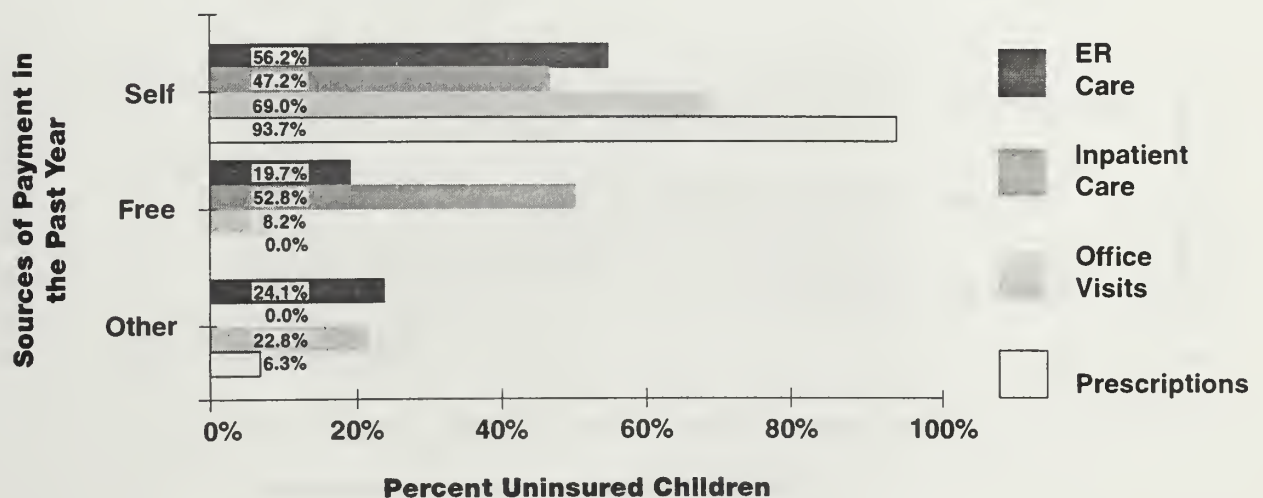


Figure 14 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Willingness to Pay for Low Cost Coverage

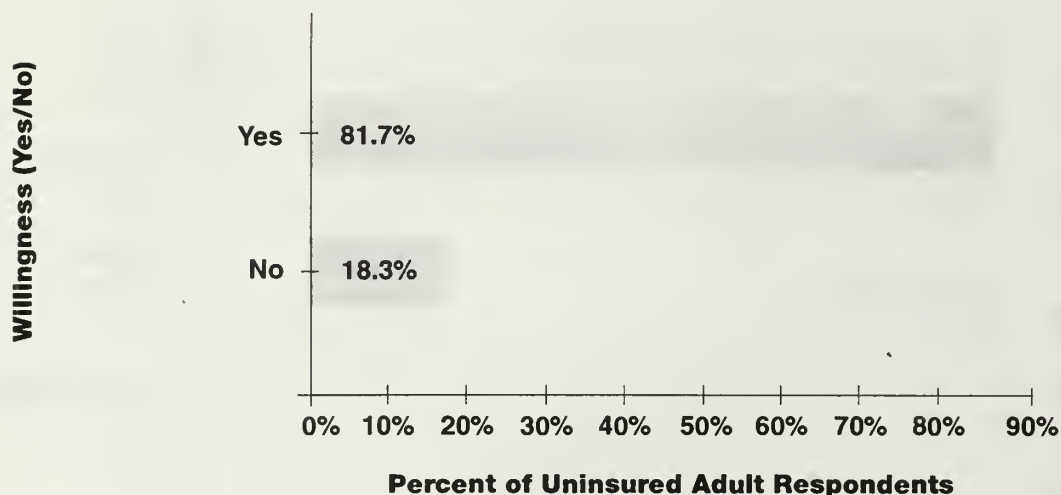


Figure 15 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Amount Respondents Are Willing to Pay for Low-Cost Coverage

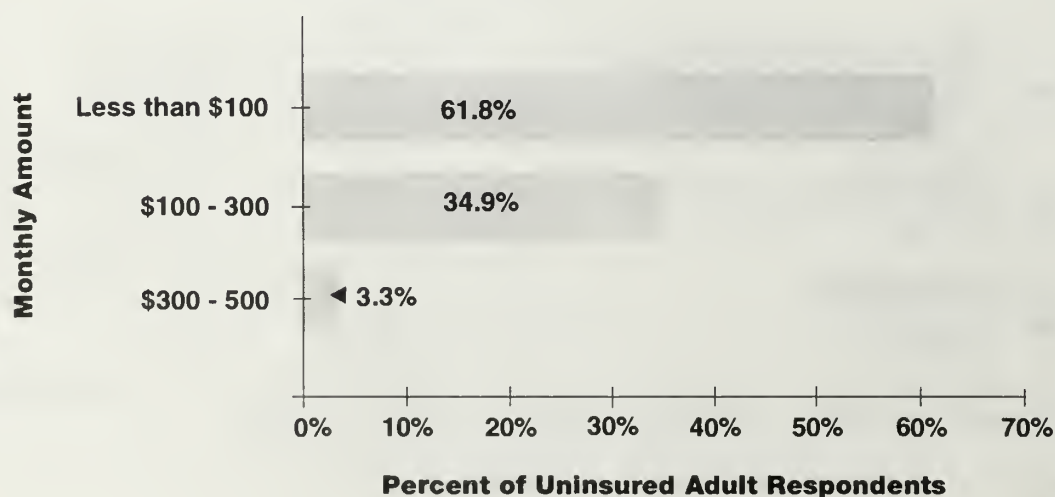


Figure 16 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Emergency Room Utilization and Insurance Status Non-elderly Adults

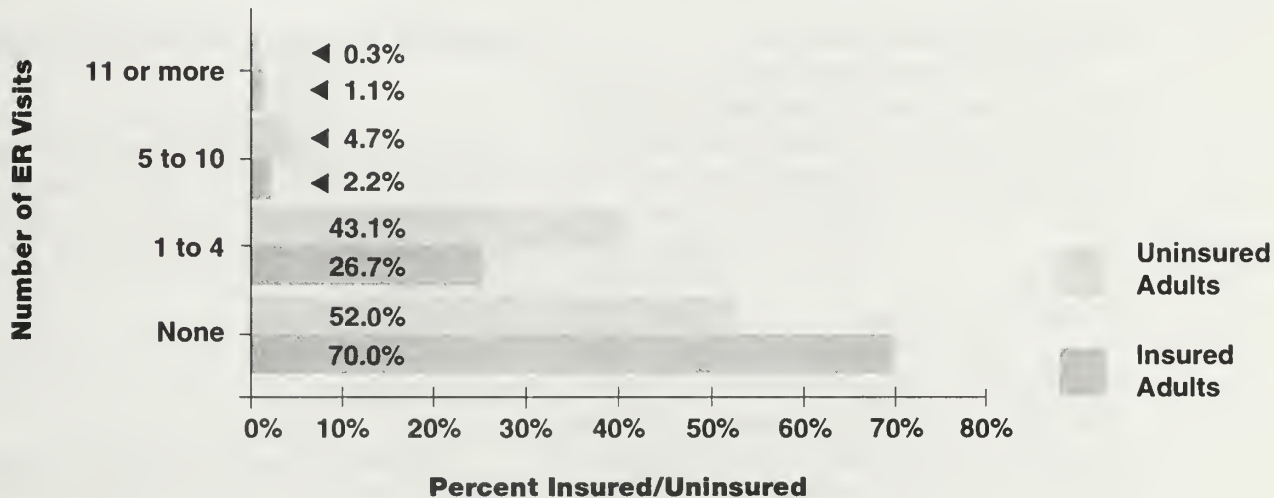


Figure 17 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Office Visits and Insurance Status Non-elderly Adults

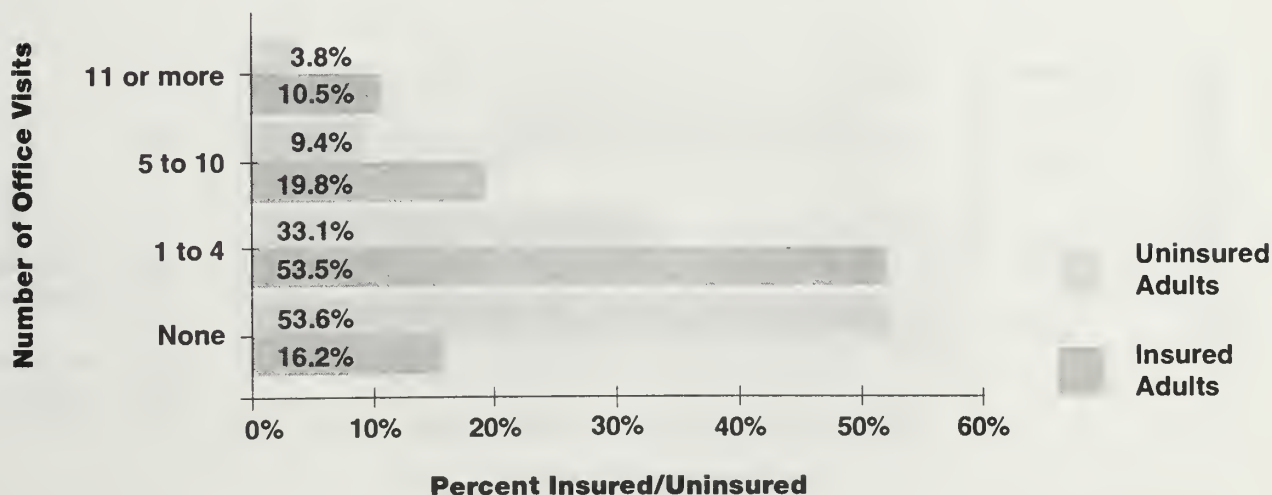


Figure 18 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

sured non-elderly adults as well as children reported lower inpatient care use than the insured.

Inpatient/Hospital Services

Overall, about 48% of uninsured adults received care in an ER compared to 30% of the insured adults. Conversely, fewer uninsured adults and children used inpatient services than those who were insured.

Outpatient Services

A higher percentage of insured adults, approximately 83%, received care in physician offices, compared to less than 50% of uninsured adults. Nearly an equal proportion of insured and uninsured children received health services in physician offices. While uninsured children used outpatient

care more frequently for up to four office visits, insured children used outpatient care more frequently for five office visits or more.

Insurance Coverage and Health Status

In contrast to the results of previous surveys, more insured than uninsured adults reported having had chronic illnesses and disabilities. A higher percent of insured than uninsured adults reported being in fair to poor health.

Access to Care

Overall, insured individuals reported having coverage for basic health services including overnight hospital stays, ER visits, physician office visits, and prescription drugs.

Emergency Room Utilization and Insurance Status Children Under 18 Years of Age

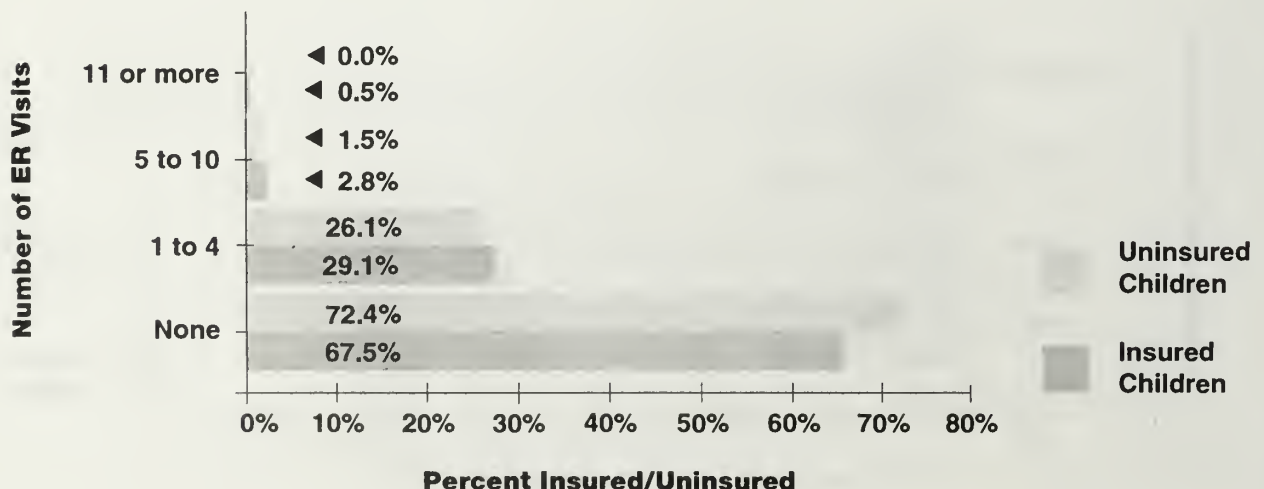


Figure 19 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Office Visits and Insurance Status Children Under 18 Years of Age

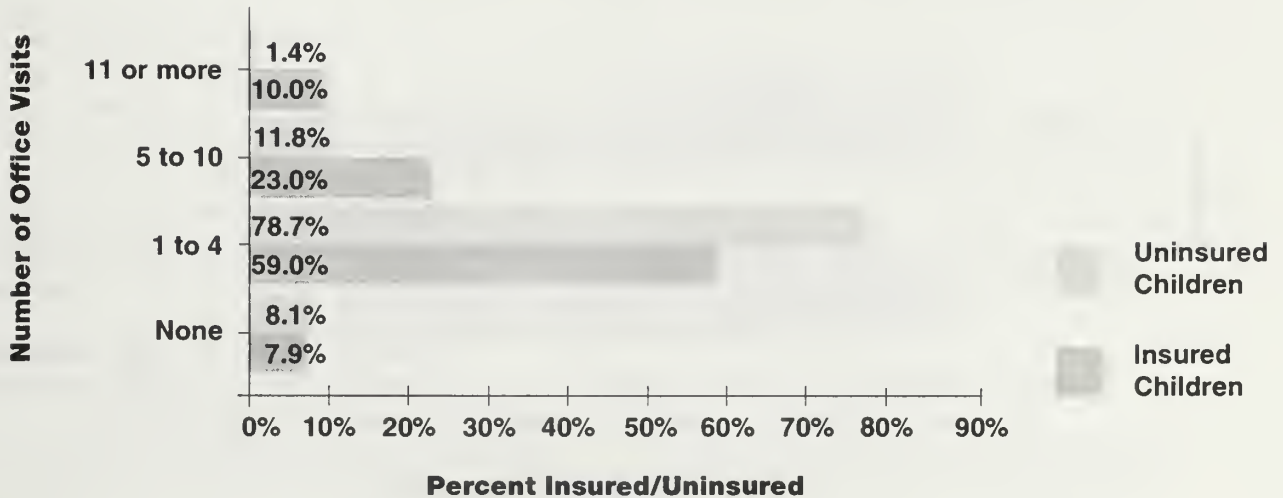


Figure 20 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Percent Reporting Chronic Condition by Insurance Status

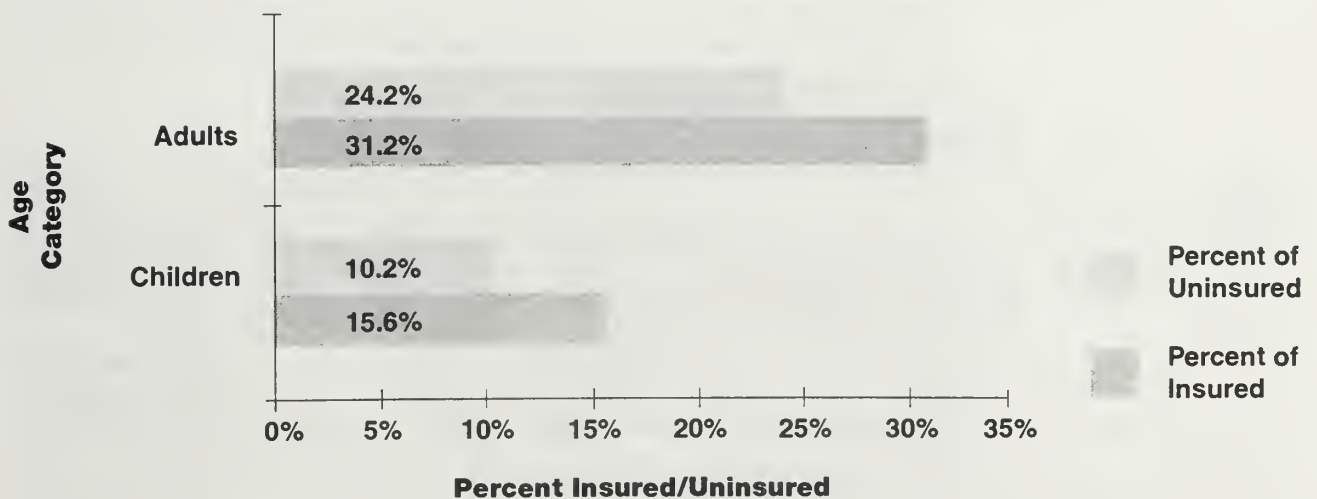


Figure 21 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Percent Reporting 3+ Office Visits by Insurance Status

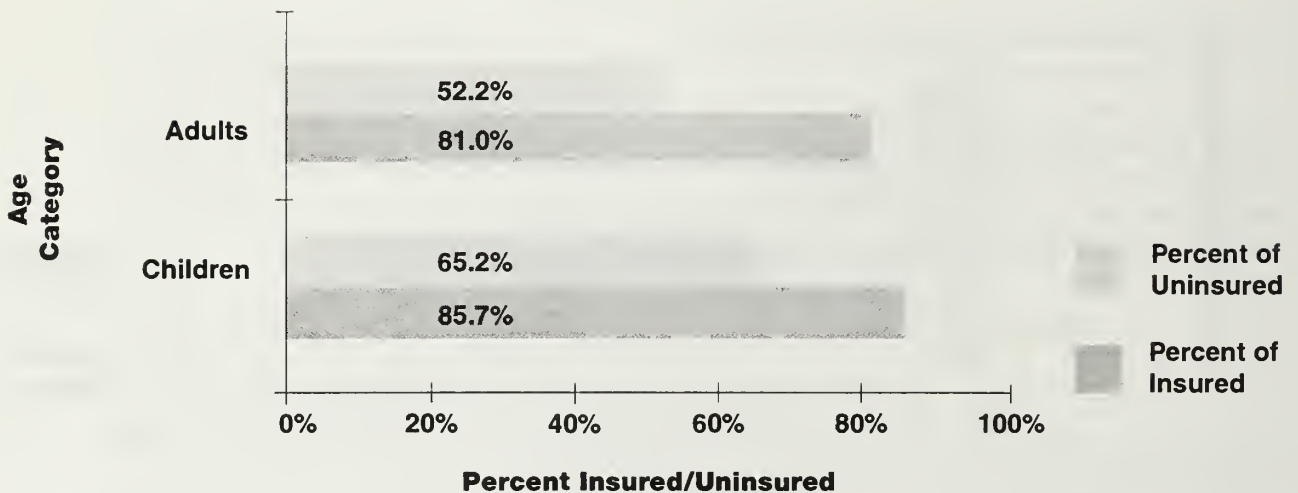


Figure 22 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Percent Reporting Prolonged Medication by Insurance Status

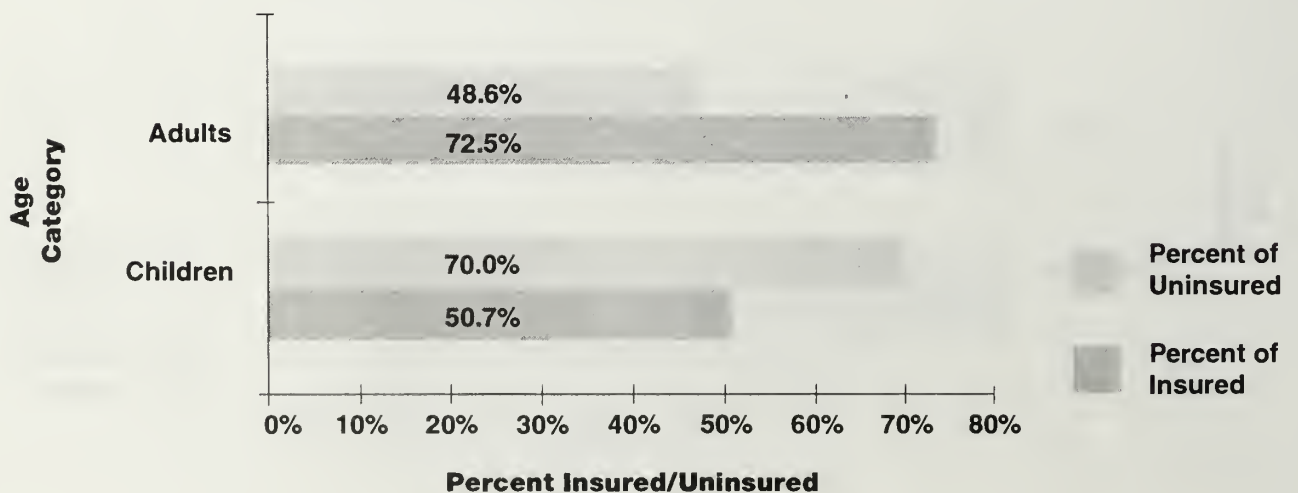


Figure 23 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

However, the uninsured as well as some of the insured experienced financial burden and/or barriers to accessing needed care that required high out-of-pocket payments.

Scope of Covered Benefits among the Insured

Over 97% of the insured reported having coverage for basic health services including overnight hospitalizations and physician office visits. In addition, more than 90% said they had prescription drug coverage under their existing health insurance policies.

Alternative Sources of Payment for Needed Services: The Uninsured

A majority of both uninsured adults and children (from 55% for ER visits to 85% or more for prescription drugs) paid out-of-pocket for health services, except for care received during overnight inpatient stays. For inpatient care, those without health insurance were covered by free care (the Uncompensated Care Pool) more than any other source.

Financial Barriers to Access to Care

Overall, there were wide gaps between insured and uninsured individuals in whether they received needed services. While 81.5% of insured adults reported having always received needed care, only 42.7% of uninsured adults

said they always received needed care in the year prior to the survey. Also, only 29.7% of insured adults, compared to 87.3% of uninsured adults, reported cost as a big reason for not having received needed health services.

Unmet Health Care Needs

About 30% of insured adults reported having needed medical services not covered by their existing insurance policies. The most frequently reported unmet health care needs included dental care, chiropractic care, routine physicals, eye exams, and mental health care.

Underinsurance in Massachusetts

Statewide rates of underinsurance for the different measures are presented below.

Almost a third of all insured respondents reported that they would be required to pay more than \$500 out of pocket for inpatient stays or outpatient surgery. Similarly, about a quarter reported that they perceived the financial burden of receiving health care to be somewhat to very high. Almost a quarter reported that accessing health care was a problem due to lack of coverage, while close to 30% reported that they had encountered financial barriers to accessing needed care.

Measures of Underinsurance	Percent Insured
Out-of-pocket costs:	
More than \$500 for inpatient stays	31%
More than \$500 for outpatient surgery	32.5%
Barriers to access/unmet needs:	
Problem due to lack of coverage	24.2%
Financial barriers to accessing needed care	29.7%
Perceived financial burden, somewhat to very high	24.1%

Massachusetts Senior Pharmacy Program

The Senior Pharmacy Program (SPP) provides Massachusetts residents, who have lived in the state for at least six months and who are ages 65 and older, up to \$750 in prescription drug coverage per year. Seniors enrolled in this program have no other insurance coverage for prescription drugs, are not eligible for MassHealth coverage, and earn no more than \$12,084 per year (150% of the federal poverty level). An annual enrollment fee of \$15 is deducted automatically (at source) from the \$750 annual benefit, thus saving potential beneficiaries any initial out-of-pocket expense for enrolling in the program. Enrollees are responsible for copayments of \$3 for generic drugs/supplies and \$10 for brand-name drugs/supplies.

Scope of the SPP Survey

Section 90 of Chapter 88 of the Acts of 1997 expanded the scope of the 1998 Health Insurance Survey to include an estimate of the number of elderly who may be eligible for SPP benefits. The SPP component of the survey was administered over the telephone, to a randomly selected sample of 452 households with at least one elderly resident, 65 years of age or older, living in the household at the time of the survey. The sample was drawn using the Random Digit Dialing method; it was almost equally distributed across the five geographic regions of the Commonwealth.

Demographic Profile of the Elderly

The majority of elderly respondents (73.5%) resided in senior-only households while 30% lived alone. About 19.2% of senior households had incomes less than 150% of FPL, and 10.5% had incomes between 150% and 185% of FPL. The majority, about 93%, of the elderly were white, while 1.2% were black and 2.6% were of Hispanic origin. As might be expected in an elderly popula-

tion, females constituted the majority (61%) of the sample. Elderly persons who used prescription drugs but lacked coverage were spread across regions of the state, with the lowest percentage (12.7%) living in metropolitan Boston and the highest (29.3%) living in Western Massachusetts.

Sources of Prescription Drug Coverage

A majority (85.6%) of elderly respondents reported having had to use prescription drugs during the year prior to the survey. Of all the elderly who said they needed to use prescription drugs in the past year, 69.1% reported having some form of coverage for prescription medicines while approximately 30.9% reported having no coverage at all. For those earning less than 150% of FPL, only 52.4% had coverage for prescription drugs, while 69.9% of the elderly with income from 150-185% of FPL had coverage.

Awareness about the Senior Pharmacy Program

About 34.8% of the elderly surveyed reported being aware of the Senior Pharmacy Program. Awareness for those in the SPP-eligible income category and without prescription drug coverage was even greater, with approximately 37% having heard about the SPP. Regional awareness for those with no coverage was highest in metropolitan Boston at about 63%. Survey respondents in Central Massachusetts reported the lowest awareness, with only 8% of the elderly having heard about the Senior Pharmacy Program.

Eligibility for the Senior Pharmacy Program

Of the elderly surveyed, approximately 5.9% or 48,500 elderly were potentially eligible for SSP benefits at the time of the survey. The largest proportion of the potentially eligible elderly lived in Western and Southeastern Massachusetts, 37% and 26% respectively.

Sources of Prescription Drug Coverage among the Elderly

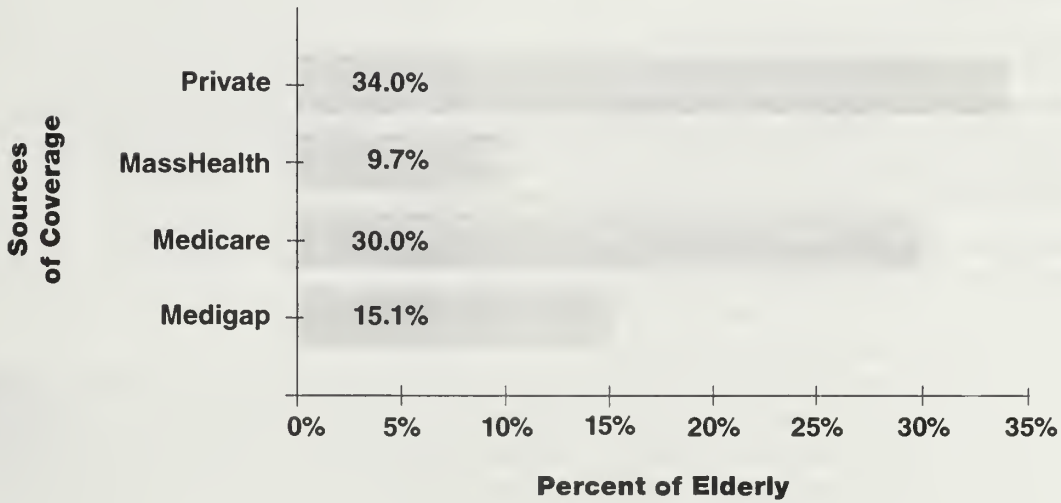


Figure 24 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Number of Massachusetts Elderly Potentially Eligible for SPP

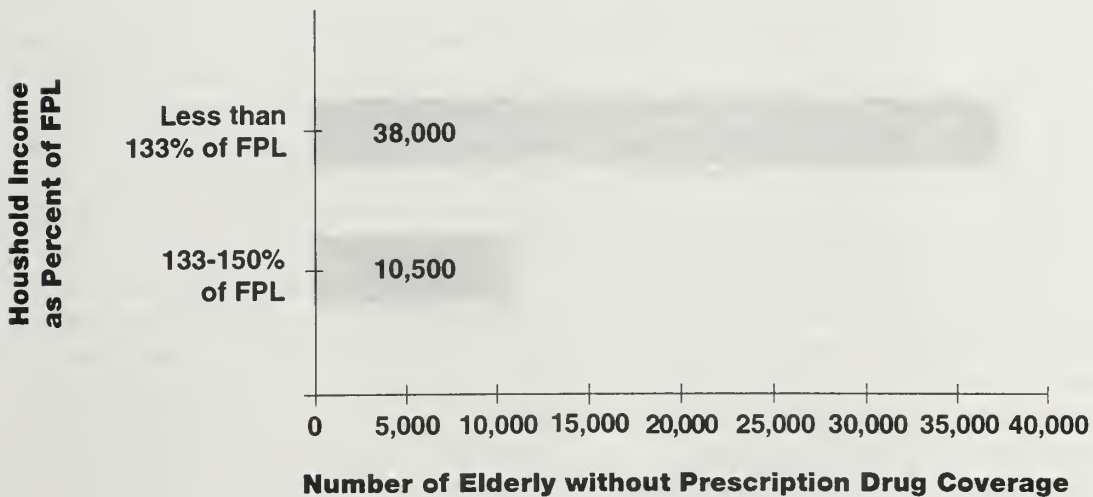


Figure 25 Source: DHCFP survey data from the random digit dialing sample (see Chapter 2 on page 5).

Endnotes for Chapter 3: Study Findings

1. The rate of uninsurance, as measured by the RDD sample, was 7.7%, representing approximately 473,000 residents.
2. The Current Population Survey (CPS), a national survey conducted annually by the United States Census Bureau, is the most frequently cited national study of national and state level rates of uninsurance. According to the CPS estimates, nearly 12.6% of the people in Massachusetts were uninsured in 1997. While some variation exists between the two surveys, it should be noted that such factors as sampling methodology, response rates, and the values and understanding of the respondents must be considered in interpreting the findings.
3. The number of uninsured children, as measured by the RDD sample, was about 77,500.

Chapter 4: Discussion

Results of the 1998 DHCFP-sponsored Survey of Health Insurance Status of Massachusetts Residents suggest that at the time the survey was completed, Massachusetts residents were more likely to have health insurance than they were in 1995: the proportion of Massachusetts residents who are uninsured dropped from 11.4% to about 8.1% between 1995 and 1998; and the percentage of uninsured children dropped from 11% in 1995 to slightly over 6% in 1998.

These positive results in part affirm efforts on the part of state policy-makers to expand health care coverage in the state. The typical uninsured resident of Massachusetts is a young adult who is more likely to be employed than not, and has income close to the federal poverty line. Although uninsured adults in Massachusetts are more likely to be unemployed than insured adults, a majority of this group is employed. The working uninsured are more likely to have more than one job or to be self-employed than individuals with health insurance. Many uninsured adults have access to health insurance at their place of employment, but do not purchase insurance because the cost is too high, or because they are subject to a waiting period before they are eligible to purchase insurance. Most individuals without insurance would be willing to purchase reasonably priced health care coverage.

The survey results also affirm the already documented relationship between employment and health insurance status; the majority of Massachusetts residents continue to receive health care coverage through their place of employment. And, individuals with longer periods of employment are more likely to have health insurance; those who drop health insurance often do so because of a change in employment status.

In addition, the results confirm that some individuals cycle in and out of having health insurance. Most of the individuals who were insured at the time of the study but uninsured at some point during the previous year were uninsured for six months or less.

Differences in insurance status translate into differences in health service utilization patterns, at least for adults. The majority of insured adults receive needed health services, while less than half of adults without insurance are able to receive health care when they need it. Adults without health insurance are more likely to go to the hospital emergency room and less likely to have office visits than adults with insurance. Contrary to previous studies of the uninsured, our results suggest that individuals with chronic conditions do have health insurance in Massachusetts; a higher percent of the insured than the uninsured report having chronic conditions and disabilities, and also report being in fair to poor health status. The lower illness burden reported by the uninsured in our study may be associated with the fact that the majority of the uninsured are younger (19-39 years of age) and, therefore, presumably healthier adults.

Finally, the survey results show that over four-fifths (85.6%) of seniors reported having had to use prescription drugs in the past year, and over two-thirds (69%) had

some form of prescription drug coverage. About a third of seniors living in Massachusetts were aware of the Senior Pharmacy Program. Using current program eligibility guidelines, we estimated that 48,500 Massachusetts seniors were eligible for the program.

The 1998 survey results suggest that health insurance expansions sponsored through recent health reform efforts, in addition to other factors such as the strong state economy in recent years, have positively impacted rates of insurance among Massachusetts residents, particularly children. The majority of adults who were unin-

sured were aware of the MassHealth program, but were not currently eligible for these benefits. However, since many of these uninsured adults are employed, they will likely be eligible for coverage under the Family Assistance Program, a recent expansion of MassHealth.

In the future, additional policy initiatives aimed at providing insurance coverage to Massachusetts residents not covered under MassHealth and other state sponsored programs may be needed not only to expand overall rates of insurance coverage, but also to improve the health status of residents of the Commonwealth.

Appendix A: Bibliography

- Anderson G, Kerluke K. et al. Distribution of prescription drug exposures in the elderly: Description and implications. *Journal of Clinical Epidemiology*. 1997;49(8):929-35.
- Berk M, Schur C. et al. Ability to obtain health care: Recent estimates from the Robert Wood Johnson Foundation National Access To Care Survey. *Health Affairs*. 1995;14(3):139-46.
- Berk M, Schur C. et al. Measuring access to care: Improving information for policymakers. *Health Affairs*. 1998;17(1):180-190.
- Blendon RJ, Donelan K, Hill C, et al. Data Watch: Medicaid beneficiaries and health reform. *Health Affairs*. Spring 1993:132-43.
- Blendon RJ, Donelan K, Hill C, et al. Paying medical bills in the United States :Why health insurance isn't enough. *Journal of American Medical Association*. 1994;271 (12):949-51.
- Blendon RJ, Donelan K. et al. Special Report: The public and the emerging debate over national health insurance. *New England Journal of Medicine*. 1990;323(3):208-212.
- Blendon RJ, Donelan K, VanDeusen C. et al. The uninsured and debate over repeal of the Massachusetts Universal Health Care Law. *Journal of American Medical Association*. 1992;267:1113-7.
- Bodenheimer T. Sounding Board: Underinsurance in America. *New England Journal of Medicine*. 1992;327(4):274-8.
- Bogard H, Pearson Ritzwollwer D, Calonge N, et al. Extending health maintenance organization insurance to the uninsured: A controlled measure of health care utilization . *Journal of American Medical Association*. 1997;277(13):1067-72.
- Caffaerata GL. Knowledge of their health insurance coverage by the elderly. *Medical Care*. 1984.
- Call K. et al. Who is still uninsured in Minnesota, Lessons from state reform efforts. *Journal of American Medical Association*. 1997;278(14):1191-95.

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- Cantor J, Haslanger K, Tassi A, et al. Health care in New York City: Service providers' response to an emerging market. *Occasional Paper Number 3, Assessing the New Federalism: An Urban Institute Program to Assess Changing Social Policies*, March 1998.
- Chow S, Kulas B. et al. Health insurance of the near elderly: A growing concern. *Medical Care*. 1998;36(2):107-9.
- Davis K. Uninsured in an era of managed care. *Health Services Research*. 1997;31(6):641-9.
- Division of Health Care Finance and Policy: *An Evaluation of Health Care Programs for Low Income Uninsured and Underinsured Massachusetts Residents*. March 1998.
- Division of Health Care Finance and Policy: *Report of the Special Commission on Uncompensated Care*. February 1997.
- Donelan K, Blendon RJ, Hill C. et al. Whatever happened to the health insurance crisis in the United States?: Voices from a national survey. *Journal of American Medical Association*. 1996;276 (16):1346-50.
- Fillenbaum G, Horner R, Hanlon JT, et al. Factors predicting change in prescription and nonprescription drug use in community- residing black and white elderly population. *Journal of Clinical Epidemiology*. 49(8):929-35.
- Flint S. Insuring children: The next step. *Health Affairs*. 1997;16(4):79-81.
- Garnick DW, Hendricks A, Thorpe K, et al. Data Watch: How well do Americans understand their health coverage. *Health Affairs*. Fall 1993:204-212.
- Greenberg J, et al. State health care reform in Massachusetts. *Health Affairs*. 1997;16(4):188-93.
- Johnson R, Goodman M, Hornbrook M, et al. The effect of increased prescription drug cost-sharing on medical care utilization and expenses of elderly health maintenance organization members. *Medical Care*. 1997;35(11):1119-31.
- Johnson R, Goodman M, Hornbrook M, et al. The impact of increasing patient prescription drug cost sharing on therapeutic classes of drugs received and on the health status of elderly HMO members. *Health Services Research*. 1997;32(1):103-122.
- Lewis K, et al. Counting the uninsured: A review of the literature. *Occasional Paper Number 8, Assessing the New Federalism: An Urban Institute Program to Assess Changing Social Policies*, July 1998.
- Marquis MS. Consumers' knowledge about their health insurance coverage. *Health Care Financing Review*. 1983; 5(1):65-80.
- Marquis MS, Long S. et al. Federalism and health systems reform. *Journal of American Medical Association*. 1997;278(6):514-7.

- McBride T. Uninsured spells of the poor: prevalence and duration. *Health Care Financing Review*. 1997;19(1):145-60.
- McCain J. Medicaid: Demographics of non-enrolled children suggest state outreach strategies. GAO, March 1998.
- McDonough J. et al. Special Report: Health care reform stages a comeback in Massachusetts. *New England Journal of Medicine*. 1997;336(2):148-51.
- McKercher P. Pharmaceuticals in Medicare Reform. *Clinical Therapeutics*. 19(6):1426-32.
- Monheit A. Underinsured Americans: A Review. *Annual Review Public Health*. 1994;15:461-85.
- Mueller C, Schur C, O'Connell J. et al Prescription drug spending : The impact of age and chronic disease status. *American Journal of Public Health*. 1997;87(10):1626-29.
- Newacheck P, Stoddard J, Hughes D, et al. Health insurance and access to primary care for children. *New England Journal of Medicine*. 1998;338(8):513-9.
- Newhouse JP, et al. How sophisticated are consumers about the medical care delivery system? *Medical Care*. 1981;19(3):316-28.
- Ray W, Gigante J, Mitchel E, et al. Perinatal outcomes following implementation of TennCare. *Jouranl of American Medical Association*. 1998;279(4):314-6.
- Rogowski J, Lillard L, Kington R. et al. The financial burden of prescription drug use among elderly persons. *The Gerontologist*. 1997;37(4):475-482.
- Sloan F, Conover C. et al. Life transition and health insurance coverage of the near elderly: *Medical Care*. 1998;36(2):110-25.
- Soumerai S, McGlaughlin TJ, Spiegelman D. et al. Adverse outcomes of underuse of beta-blockers in elderly survivors of acute myocardial infarction. *Journal of American Medical Association*. 1997;49(8):929-35.
- State-Specific prevalence estimates of uninsured and underinsured persons-Behavioral Risk Factors Surveillance System, 1995. *Morbidity and Mortality Weekly Report*. 1998;47(3):51-5.
- Stuart B, Grana J. et al. Ability to pay and the decision to medicate. *Medical Care*. 1998;36(2):202-11.
- Swartz K, McBride T. et al. Spells without health insurance: Distributions of durations and their link to point-in-time estimates of the uninsured. *Inquiry*. 1990;27:281-8.
- Thorpe K. Changes in the growth in health care spending: Implications for consumers. *Tulane University Medical Center Institute for Health Services Research*, April 1997.

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- Thorpe K. Incremental approaches to covering uninsured children: Design and policy issues. *Health Affairs*. 1997;16(4):64-78.
- Thorpe K. Incremental strategies for providing health insurance for the uninsured. *Journal of American Medical Association*. 1997;278(4):329-33.
- Thorpe K. The rising number of uninsured workers: An approaching crisis in health care financing. *Tulane University Medical Center, Institute for Health Services Research*. October 1997.
- Thorpe K, Hendricks A, Garnick D, et al. Reducing the number of uninsured by subsidizing employment-based health insurance. *Journal of American Medical Association*. 1992;267(16):1346-50.
- Turnbull N, Miller M. et al. The state of the MediGap market in Massachusetts. *Issue Brief, The Massachusetts Health Policy Forum*. Number 1.

Appendix B: Listing and Map of the Five Geographic Regions

Region 1:

Greater Boston Area: Norfolk, Suffolk and Southern Middlesex counties

Region 2:

Northeastern Massachusetts: Essex and Northern Middlesex counties

Region 3:

Southeastern Massachusetts:

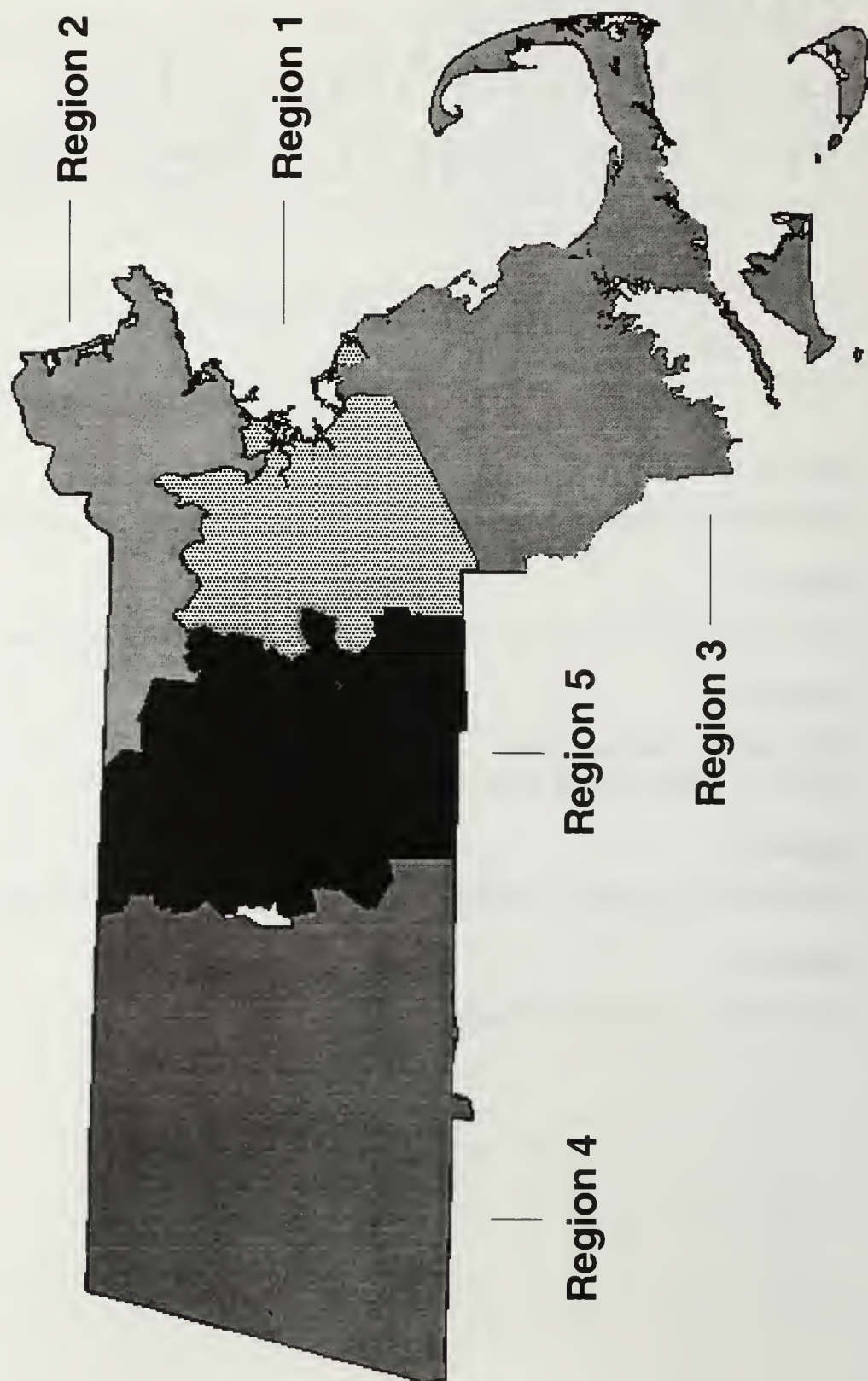
Plymouth, Bristol, Dukes, Barnstable and Nantucket counties

Region 4:

Western Massachusetts: Berkshire, Hampden, Hampshire and Franklin counties

Region 5:

Central Massachusetts: Worcester county



Production Notes

Health Insurance Status of Massachusetts Residents was researched and produced by the staff of the Division of Health Care Finance and Policy. The Division is solely responsible for its content and distribution.

Publication design, editing, page layout and the originals for this document were produced in-house using cost-effective, elec-

tronic desktop publishing software and microcomputer and photocopier equipment.

Health Insurance Status of Massachusetts Residents was printed and assembled at the Operational Services Division, Office of Central Reprographics under the direction of Ed Goba. The report was prepared for general distribution at the Division of Health Care Finance and Policy.

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Publication of this document approved by Philmore Anderson, State Purchasing Agent
Publication Number # 18058-50-300-10/98-DHCFP-C.R.
Printed on recycled paper.

